



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

08/265,391 06/24/94 LEWIS

S JAS103CIP
EXAMINER

24M1/0612

HONG, S

ART UNIT PAPER NUMBER

JOSEPH A. SAWYER, JR.
BENMAN COLLINS & SAWYER
620 HANSEN WAY
SUITE A
PALO ALTO, CA 94304

2412

DATE MAILED:

06/12/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

3

This application has been examined Responsive to communication filed on 6/24/94 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s). 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892.	2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948.
3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.	4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.
5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.	6. <input type="checkbox"/>

Part II SUMMARY OF ACTION

1. Claims 1-39 are pending in the application.
2. Claims _____ are withdrawn from consideration.
3. Claims _____ have been cancelled.
4. Claims 1-39 are allowed.
5. Claims _____ are rejected.
6. Claims _____ are objected to.
7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. Formal drawings are required in response to this Office action.
9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.
13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. Other

EXAMINER'S ACTION

Part III DETAILED ACTION

1. This action is responsive to communications: application, filed on 6/24/94 which is a continuation-in-part of the application 07/975,824, filed on 11/13/92, which is patented (5,325,423) on 6/28/94.
2. Claims 1-39 are pending in the case. Claims 1, 27 and 31 are independent claims.

Priority

3. Acknowledgment is made of applicant's claim for priority based on an application filed in PCT on 11/11/93. It is noted, however, that applicant has not filed a certified copy of the PCT application as required by 35 U.S.C. § 119.
4. If applicant desires priority under 35 U.S.C. § 120 based upon a parent application, specific reference to the parent application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. Status of the parent application (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "Patent No." should follow the filing date of the parent application. If a parent application has become abandoned, the expression "abandoned" should follow the filing date of the parent application.

Drawings

5. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

6. Applicant is reminded of the proper content of an Abstract of the Disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains.

If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure.

If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement.

In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof.

If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following: (1) if a machine or apparatus, its organization and operation; (2) if an article, its method of making; (3) if a chemical compound, its identity and use; (4) if a mixture, its ingredients; (5) if a process, the steps. Extensive mechanical and design details of apparatus should not be given.

7. The disclosure is objected to because of the following informalities: in the Detailed Description of the Invention, on page 14, line 11, "U.S. Patent Application Number _____" and line 14, "filing date of _____" should be updated with appropriate information; on page 21, lines 1-4, the sentence "A final version ... identification." is awkward and confusing; in the claims, on page 38 (line 18), page 39 (line 1), page 42 (lines 9 and 18), page 46 (line 9),

it seems that the words in bold (i.e., "Scott....") were inadvertently included. Appropriate correction is required.

This is not an exhaustive list of any potential informalities, and Examiner requests that Applicant review the application carefully for other similar informalities.

Claim Rejections - 35 USC § 112

8. Claims 1-39 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims that are noted above as being rejected but not specifically cited below are rejected based on their dependency on rejected independent claims.

With respect to independent claim 1:

lines 21 and 24, the use of "voice mode" and "data mode" is vague and indefinite. It is unclear exactly how they differ in the claimed invention.

line 21, the use of "branches" is vague and indefinite. It is unclear what action is meant by the word.

line 25, the use of "the appropriate data" lacks an antecedent basis.

With respect to dependent claim 2:

line 2, the use of "subjective control" is vague and indefinite. It is unclear what it is.

line 2, the use of "the quality" lacks an antecedent basis.

With respect to dependent claim 3:

line 2, the use of "objective control" is vague and indefinite. It is unclear what it is.

line 2, the use of "the quality" lacks an antecedent basis.

line 3, the use of "the use" lacks an antecedent basis.

With respect to dependent claim 7:

line 3, the use of "demographics" is vague and indefinite. Applicant should clarify what exactly he/she means by the word.

line 3, the use of "the characteristics" lacks an antecedent basis.

line 4, the use of "forward" is vague and indefinite, as it is unclear to where the information is being forwarded.

With respect to dependent claim 8:

line 3, the use of "the communication network" lacks a clear antecedent basis.

line 2, the phrase "delay transmission... until ... the network is not in use" is vague and indefinite. It is unclear and confusing how the transmission can occur without using the network. Applicant should clarify it.

With respect to dependent claim 10:

line 3, the use of "standard voice response" is vague and indefinite. It is unclear what it is.

With respect to dependent claim 11:

line 3, the use of "interactive voice response" is vague and indefinite. It is unclear how the "interactive voice response" differs from the "standard voice response".

With respect to dependent claim 15:

line 1, the use of "telephone handset is used" is vague and indefinite. Applicant should clarify how the handset is used for controlling (e.g., voice command through the transmitter of the handset).

With respect to dependent claim 19:

line 2, the use of "key coding" is vague and indefinite.

With respect to dependent claim 22:

line 2, the use of "in parallel" is vague and indefinite. It is unclear exactly what Applicant means by the word "parallel".

With respect to dependent claim 23:

line 3, the use of "the MCPS" lacks an antecedent basis, and is vague and indefinite. The acronym used should be defined in the claim.

With respect to dependent claim 26:

line 2, the use of "transmission occur when the telephone line is not being utilized." is vague and indefinite. As currently written, it is confusing as it seems that the transmission occurs without utilizing the telephone line.

With respect to independent claim 27:

line 3, the use of "program model" is vague and indefinite.

line 5, the use of "form" is vague and indefinite. Applicant may have meant "from", instead.

line 5, the use of "the multimedia modem means" lacks an antecedent basis.

line 6, the use of "enhancing" is vague and indefinite. It does not clearly describe what is being done.

line 13, the uses of "objective metric"; line 14, "the perceived quality"; line 16, "subjective indication"; line 17, "perceived quality" are vague and indefinite.

line 12, the use of "the determining means"; line 14, the use of "the perceived quality"; line 22, "the uncompressed portion"; line 24, "the telephone network" lack antecedent basis.

line 22, the use of "means for transmitting..." is vague and indefinite. It is unclear from where the information is receive and to where it is transmitted.

line 25, the use of "decompressed" and "uncompressed" is vague and indefinite, as it is unclear how they differ.

With respect to dependent claim 28:

line 2, the use of "keying" is vague and indefinite.

line 3, the use of "the psychographic parameters" lacks an antecedent basis, and is vague and indefinite.

With respect to dependent claim 29:

line 2, the use of "separate production sources" is vague and indefinite. It is unclear what action is performed by the expression.

With respect to dependent claim 30:

line 2, the use of "spatially separating" is vague and indefinite.

With respect to independent claim 31:

line 11, the use of "synchronization" is vague and indefinite. It is unclear to what they are synchronized.

line 14, the use of "the quality" lacks an antecedent basis.

With respect to dependent claim 37:

line 2, the use of "subjective control" is vague and indefinite.

line 2, the use of "the quality" lacks a clear antecedent basis.

With respect to dependent claim 38:

line 2, the use of "objective control" is vague and indefinite.

line 2, the use of "the quality" lacks a clear antecedent basis.

line 3, the use of "the use of quality metrics" lacks an antecedent basis.

With respect to dependent claim 39:

lines 7 and 10, the uses of "the perceived quality" lack antecedent basis, and are vague and indefinite.

line 6, the use of "objective metric" is vague and indefinite.

line 10, the use of "subjective indication" is vague and indefinite.

9. Claim 13 is rejected under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Dependent claim 13 is a dependent claim to claim 10 which depends on claim 9 which depends on claim 7 which depends on dependent claim 5. The limitation (i.e., "printer") of the subject matter in dependent claim 13 is substantially the same as the limitation of the subject matter claimed in dependent claim 5.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

11. Claims 1-10, 12-13, 15, 17 and 23-39 are rejected under 35 U.S.C. § 103 as being unpatentable over Hoarty et al., U.S. Pat. No. 5,220,420, 6/15/93 (filed on 9/10/91), 348/12.

With respect to independent claim 1, Hoarty discloses the claimed apparatus including: **Applicant claimed means for receiving program materials and separating the program materials into primary and secondary layers** (in the prior art, column 7, line 5, "The regional processing center 4 converts and normalizes incoming digitized pictures, digitized sound and text into system standardized format." shows receiving the program materials. column 7, line 21, "the data are grouped by category ... then further processed to establish relevant associations or meaning amongst the data object" and line 62, "The layered data structure presents a uniform structure" show separating the materials into categories and the categories being structured as layers.); **the multimedia call processing system** (column 8, line 13, "Once the data is assembled and processed at the regional center ...the data needs only be transferred to nodes 12 for access by the home users" shows that the "node" is

responsive to the interactive material from the regional center and is responsible for providing information.); **means interactively for controlling the flow of multimedia information** (column 8, line 23, "The home user interacts with node 12 through a home interface controller 16"); **a plurality of interactive multimedia devices** (column 8, line 19, "Each node 12 can serve up to about 60 homes " and line 37, "The entire database that a user interacts..." show the plurality of devices, and also the "interaction" shows both receiving and transmitting.); **the multimedia call processing system receiving a control signal by voice mode of a IMD** (column 4, line 1, "the system is configured to allow user responses to be transmitted", and line 10, "dial the telephone of the user to allow the user to speak directly to a system advertiser" shows the use of a voice mode for giving a control information.); **branching in accordance with the program materials** (column 11, line 28, "a channel can only be viewed by the home that it was allocated to" and line 44, "The channel is not viewable by other homes" show that the information is branched to the designated homes only.); **including means for switching to a data mode** (column 4, line 17, "the present invention ... can deliver photographic quality images, as well as full-motion video with sound ..." shows the data mode, and therefore, inherently showing "switching", as the multimedia information is sent as data; not voice.); **transmitting the appropriate data back to the IMD which requested the data** (column 3, line 51, "the user retrieves selected multimedia information by sending commands back to the node."), except for disclosing the **multimedia call processing system returning to the voice mode**. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the

multimedia call processing system to return back to the voice mode after the data transmission, since the voice mode would have allowed the user at an IMD to request another set of information by voice via the phone line.

With respect to dependent claim 2, noting that the claim is rejected above under U.S.C 112 Second paragraph for being vague and indefinite, Hoarty discloses the claimed apparatus including: the IMM system providing for **subjective control of the quality** of the multimedia information (column 17, line 29, "The nodes ... can be programmed to control the home interface controllers ...asking those users whether they are interested in receiving additional information ..." shows the subjective control, giving the agreed users additional multimedia information, thus giving better (robust information) quality.).

With respect to dependent claim 3, although the claim is rejected above under U.S.C 112 Second paragraph for being vague and indefinite, Hoarty discloses the claimed apparatus including: the IMM system providing for **objective control of the quality** of the multimedia information **through the use of a quality metric** (column 17, line 50, "users watching a particular program would automatically be switched to a virtual channel over which a commercial customized for their particular demographic location would be transmitted" shows the objective control and the metric being the demographic data.).

With respect to dependent claim 4, Hoarty discloses the claimed apparatus including:

Applicant claimed means for **creating multiple multimedia files** for use by the multimedia mastering system (column 7, lines 5-19, "The regional center converts and normalizes .. into system standardized format ...into an object-oriented database. Each object in the database is made up of one or more of ... one or more digitized photographic ... sound ...text ..." shows the plurality of multimedia files).

With respect to dependent claims 5 and 6 Hoarty discloses the claimed apparatus including:

the IMD coupled to a **printer** (claim 5) and couple to a **display** (claim 6)(column 3, line 65, "to provide users with printers for printing"; column 5, line 53, "views the system output on an unmodified home television set" shows a display.).

With respect to dependent claim 7, Hoarty discloses the claimed apparatus including: means for **using demographic data for the interactive multimedia communication** (column 17, line 61, "a variety of commercials targeted to different demographic groups, such that the commercial viewed by one class of users would be customized to the interests of those viewers..."), except for disclosing that the **demographic information is stored in each of the IMD and the information is forwarded at an appropriate time**. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have stored the demographic information in each IMD, since each IMD would have been placed in each location of the users. Also, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to have forwarded the demographic information at an appropriate time, since, as Hoarty disclosed above, the demographic information would have been useful for the commercials and the appropriate time would have been the time the commercials were to be played.

With respect to dependent claim 8, Hoarty discloses the claimed apparatus including: the IMD that can **delay transmission** (column 16, lines 38-48, "a user can program the system to turn on a lamp in his house at a certain time .. At the time programmed for activation, the node sends an instruction to the user's home interface controller.."), except for **delaying until the communication network is not in use**. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have delayed the transmission until the network is not in use, since it would have avoided the overcrowding and even overloading of the communication network.

With respect to dependent claim 9, Hoarty discloses the claimed apparatus in which the **display comprises a television** (column 5, line 53, "views the system output on an unmodified home television set").

With respect to dependent claim 10 and 15, Hoarty discloses the claimed apparatus in which control of the transmission uses a **standard voice response system** (claim 10) and a **telephone handset** (claim 15). As shown as explained with respect to independent claim 1

above, the user speaks to the advertiser directly over the phone. The use of the telephone handset is inherently shown, as one would speak through the handset in order to communicate.

With respect to dependent claim 12, Hoarty discloses the claimed apparatus in which control of the transmission uses a **computer processing system** (column 3, line 66, "the source of updates, usually from the central processing computer...").

With respect to dependent claim 13, Hoarty discloses the claimed apparatus in which a **printer is connected to the IMD** (column 3, line 65, "to provide users with printers for printing").

With respect to dependent claim 17, Hoarty discloses the claimed apparatus in which a **remote control is used to control and select** the transmission and presentation (column 3, line 57, "the system are provided with a remote control for inputting user commands").

With respect to dependent claim 23, Hoarty discloses the claimed apparatus wherein **certain portions of multimedia are designated as primary and certain portions as secondary** (column 7, line 21, "the data are grouped by category ... then further processed to establish relevant associations or meaning amongst the data object"). Any information that are

requested first would have been primary and the subsequent information would have been secondary designation, thus they are inherently shown.

With respect to dependent claim 24, Hoarty discloses the claimed apparatus as explained with respect to claim 23, which is herein incorporated, except for disclosing that **the transmission can occur simultaneously**. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have simultaneously transmitted both primary and secondary information, since it would have provided more information to the user, and the multiplexing technique, which was used to send multiple data simultaneously, was well known in the art.

Dependent claims 25 and 26 is for a substantially similar apparatus as the apparatus in dependent claim 9, except for **the transmission line being a telephone line**. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have used a telephone line as the communication line, since telephone line was a widely available communication lines, as it reached almost every household.

With respect to independent claim 27, Hoary discloses the claimed apparatus including: **Applicant claimed means for separating into primary and secondary layers** (explained in the rejection of claim 1 which is incorporated); **memory means for receiving the information from the modem means**(column 6, line 9, "Data from these providers is

received via computer modem ..." and line 19, "The headend computer acts as a store" show the memory means.); **means for enhancing the primary layer** (column 6, line 24, "the headend computer 8 transmits the data updates at a preferred data rate of 9600 bps or greater" inherently shows that the faster data is chosen for speedy interchange of information, hence enhancing interactivity.); **the enhancing means further comprising means for determining whether one or a first and second approach is to be followed** (explained with respect to dependent claim 39 and is herein incorporated.); **means for decompressing the primary layer** (column 18, line 29, "The nodes ... can also be used for decompressing"); **means for transmitting the uncompressed portion received from the telephone network** (column 19, line 29, "Decompressed programming is transmitted ...") and means for providing an **output to a display** (explained with respect to dependent claim 6), except for disclosing **means for mixing the decompressed portion with the uncompressed portion** and means for **interactively controlling** the multimedia modem means, compressing means, decompressing means, mixing means. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have mixed the decompression portion with the uncompressed portion for transmission, since it was a commonly used technique of multiplexing, and it would have allowed more information to be transmitted with given communication medium. Hoarty discloses the means for controlling the decompression (column 20, line 62, "the compressed video can be accessed (and decompressed) by user of the system"), but does not explicitly state that the control is interactive. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have

included the means for interactively controlling the multimedia modem means, compressing means, decompressing means, mixing means into Hoarty's system, since it would have given the user more control of the system and would have been able to respond quickly on system status such as overloading.

With respect to dependent claim 28, Hoarty discloses the means for keying (with respect to claim 19) and means for using the psychographic parameters (with respect to claim 7), except for disclosing that the psychographic parameters are used as the key coding. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have key coded the psychographic parameters, since each user (e.g., household) would have different psychographic parameter, and the key coding would have identified which information could have been most useful for each user.

With respect to dependent claim 29, Hoarty discloses the separating means comprising **separate production source** (column 6, line 7, "data for the system originates from various contracted information providers" shows that there are separate sources that provide various types of information.).

With respect to dependent claim 30, Hoarty discloses the means for spatially separating the **primary and secondary layers in accordance with the psychographic parameters** (column 17, line 52, "for their particular demographic location ... [line 61]a variety of commercials

targeted to different demographic groups, such that the commercial viewed by one class of users would be customized to the interests of those viewers, while other viewers see a different commercials customized" shows the spatially separation of the layers, since a respective demographic classes are in different locations with respect to each other.).

With respect to independent claim 31, Hoarty discloses the claimed apparatus including: **means for linking the first set of program source with the second set** (column 7, "Listings and advertisements will be transmitted to regional processing center... [line 5] converts and normalize pictures ... sounds and text into standardized format ...[line 20] the data are group"); **means for controlling the quality** (column 7, line 47, "The ad ... carried by the system can be text only, such as a simple .. or could contain a picture ..." shows the different quality, and thus showing the means for controlling it.); **means for interactively producing the second set** (column 7, line 24, "The associations ...are added to the respective objects ...[line 28] The hypertext-like script ... is used to guild the user"), except for disclosing that the **user of the system can produce additional information** to the first set of program source material. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the system to allow a user to produce additional information, since it would have allowed the user to create more complete multimedia information.

With respect to dependent claim 32, Hoarty discloses the claimed apparatus including the means for **simultaneously displaying the second set with the first** (column 7, line 49, "The system can store and display in layered fashion).

With respect to dependent claims 33 and 34, Hoarty discloses the claimed apparatus as explained with respect to claim 31, which is incorporated herein, except for disclosing that **the second set provides more detailed information related to first** (claim 33) and **second set provides different from but related to the first set** (claim 34). However, Hoarty shows the grouping for the information (column 7, line 21, "the data are grouped by category ...then further processed to establish relevant associations or meaning amongst the data object"). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have group the data in Hoarty's invention so that the second set provides more detailed information or provides relevant but different information from the first, since it would have been obvious ways of organizing information, so that users can follow the material logically.

With respect to dependent claim 35, Hoarty discloses the claimed apparatus as explained with respect to claim 31, which is incorporated herein, except for disclosing the means for **displaying the second set of program source material while producing the first**. Hoarty shows that the producing of the program material is done simultaneously with displaying of other information (column 6, line 9, "Data from these providers ... come into the regional

center throughout the day ...This information is processed and customized", line 32, "the data being sent from regional processing center directly to the nodes" and column 3, line 16, "the subscriber interacts directly with the information stored in the node, and not with the information stored in the regional processing center" inherently shows that one set of information is produced while the other is being displayed.). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have displayed the second set of program source material while producing the first, since it would have allowed most up-to-date information be available to the users.

With respect to dependent claim 36, Hoarty discloses the means for selecting related services (column 12, line 61, "The printer 50 can also print store coupons for special promotions."), except for disclosing that the selection is based upon the second set of program material. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have selected based on the second set, since the second set could have provided more detailed and relevant information of the service.

Dependent claims 37 and 38 are for substantially similar apparatus as the apparatus in dependent claims 2 and 3, respectively, and are similarly rejected under the same rationale.

With respect to dependent claim 39, Hoarty discloses the claimed apparatus as explained with respect to claim 31, which is herein incorporated, except for disclosing the means for

determining the choice of a first or second approach. The subjective and object controls are disclosed with respect to the explanation of claims 37 and 38, and the explanation is herein incorporated. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have included means for determining which approach to follow, since there were two approaches available to be used.

12. Claims 14 and 18-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Hoarty et al., U.S. Pat. No. 5,220,420, 6/15/93 (filed on 9/10/91), 348/12 in view of Glick et al., U.S. Pat. No. 5,283,819, 2/1/94 (filed on 4/25/91), 379/90.

With respect to dependent claim 14, Hoarty discloses the claimed apparatus as explained with respect to claim 10, of which rejection is herein incorporated, except for disclosing that a **facsimile machine is connected to the IMD**. Glick discloses the use of facsimile devices for transmitting data in a multimedia communication network (Item 44 in FIG. 1 and column 4, line 36, "The telecommunications circuitry 12 not only encompasses voice and fax"). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have connected a facsimile used by Glick to Hoarty's multimedia communication system, since Hoarty's users had the phone lines available and the facsimile connection would have provided the users and the central system the capability to interchange copies of written files.

With respect to dependent claims 18-20, Hoarty discloses the claimed apparatus including: **multimedia decompression means** of claim 18 (in the Abstract, lines 16-20, "The nodes can also be used for decompressing ..."); **a key coding means** of claim 19 (column 19, line 63, "These commands can be scrambled ... each home interface controller would contain a descrambling "key" ..."); and **a generator means** of claim 20 (column 3, line 2, "a regional processing center for assembling and processing the information" shows the means for generating.), except for disclosing a music synthesizer. Glick discloses a use of a music synthesizer in a multimedia system (Item 30 in FIG. 1; column 5, line 42, "Audio multimedia circuitry includes ... MIDI interface (which actually provides a telecommunications port for multimedia digital sound inputs)"). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated Glick's music synthesizer into Hoarty's multimedia communication system, since the synthesizer would have allowed the digitized forms of audio to be interchanged and therefore, the audio could have been saved as digitized files for later reproduction on any device that was capable of playing the file.

With respect to dependent claims 21 and 22, Hoarty discloses the claimed apparatus as explained with respect to claim 10, which is herein incorporated, except for disclosing **data, voice and facsimile on a single telephone line** (claim 21) and **on multiple telephone lines** (claim 22). Glick discloses the transmission of data, voice, and facsimile on a single telephone line (column 2, line 42, "over a telephone line ... comprising a data/fax/voice"). It

would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated Click's transmission of data, voice, and facsimile on a single telephone line in Hoarty's multimedia system, since the use of a single line would have saved the cost of getting multiple telephone line services. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have transmitted data, voice, and facsimile over multiple telephone lines, since, although it may have cost more, it would have sped up the transmission, as each line would have been dedicated for different types of transmission and thus, they could all have been transmitted simultaneously.

13. Claims 11 and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Hoarty et al., U.S. Pat. No. 5,220,420, 6/15/93 (filed on 9/10/91), 348/12 in view of Wilson et al., U.S. Pat. No. 5,195,092, 3/16/93 (filed on 8/30/91), 370/94.2.

With respect to dependent claims 11 and 16, Hoarty discloses the claimed apparatus as explained with respect to claim 9, herein the rejection of which is incorporated, except for disclosing that the **control of the transmission is accomplished using an interactive voice response system** (claim 11) and that a **telephone keypad** is used (claim 16). Wilson discloses the use of an interactive voice response system using a telephone keypad (column 22, line 58, "The voice network server 70 controls the modems, retrieves the subscriber's key presses and sends the key presses to the subscriber's session server"; column 6, line 63, "a subscriber enters codes via a standard Touch-Tone telephone keypad"). It would have been

obvious to a person of ordinary skill in the art at the time the invention was made to have used an interactive voice response system to control the transmission, since the use of an interactive voice response system would have automated the interaction, thus not requiring a human operator to be stand-by at all time.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,251,209 Jurkevich et al. 10/5/93 (filed on 3/28/91) 370/82

Prioritizing attributes in integrated services networks.

5,351,276 Doll, Jr. et al. 9/25/94 (file on 2/10/92) 379/67

Digital/audio interactive communication network.

5,236,199 Thompson, Jr. 8/17/93 (filed on 6/13/91) 273/439

Interactive media system and telecomputing method using telephone keypad signalling.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Hong whose telephone number is (703) 308-5465. The examiner can normally be reached on Monday-Friday from 8:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (703) 305-9701. The fax phone number for this group is (703) 305-9564(65).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2412.

Stephen Hong
Stephen Hong

Patent Examiner

June 7, 1995

Heather R. Herndon
HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
GROUP 2400